

Remarks

1. Summary of the Office Action

In the office action mailed March 16, 2009, the Examiner rejected 1-3, 5-7, 12, and 14 under 35 U.S.C. § 103(a) as being allegedly obvious over U.S. Patent Application Pub. No. 2004/0228292 (Edwards) in view of U.S. Patent No. 4,509,167 (Bantel), and the Examiner rejected claims 8-11 and 13 under 35 U.S.C. § 103(a) as being allegedly obvious over Edwards in view of Bantel in view of U.S. Patent Application Pub. No. 2004/0190489 (Palacz).

2. Status of the Claims

Pending are claims 1-3 and 5-14, of which claim 1 is independent.

3. Response to Rejections

In order to establish *prima facie* obviousness, an Examiner is required to clearly articulate reasoning with rational underpinnings to support the conclusion of obviousness. (M.P.E.P. § 2142.) In this case, the Examiner did not meet that burden and therefore did not establish *prima facie* obviousness of the claims.

Of the pending claims, claim 1 is independent and stands rejected as being allegedly obvious over Edwards in view of Bantel.

Claim 1 recites that each user station is (i) a half-duplex capable station or (ii) a half-duplex and full-duplex capable station, and that, during a real-time media session between a plurality of user stations via a communication server, the communication server detects that a half-duplex capable station joins the session and that the communication server responsively directs each other participating station to operate in the half-duplex mode.

This functionality is not disclosed or suggested by Edwards and Bantel, and the functionality does not logically follow from the limited teachings of Edwards and Bantel. Further, the Examiner's characterization of the prior art teachings is erroneous, and so the Examiner's reliance on that characterization of the prior art renders the Examiner's ultimate conclusion of obviousness unsupported by rational underpinnings and consequently erroneous.

In rejecting claim 1, the Examiner admitted that Edwards does not specifically disclose the limitation of during the real-time media session, the communication server detecting that a half-duplex station joins the session and responsively directing each other participating station to operate in the half-duplex mode.

The Examiner then asserted that Edwards provides "motivation to somehow incorporate radios with different capabilities such as half or full duplex modes." (See office action, page 4, lines 4-10.) And the Examiner then turned to Bantel as allegedly making up for the admitted deficiency of Edwards.

Although Edwards provides "motivation to somehow incorporate radios with different capabilities such as half duplex or full duplex modes", Edwards *itself* fully achieves that goal. In particular, as the Examiner acknowledged, Edwards already teaches allowing half-duplex and full-duplex terminals communicate with each other in a conference, by simply having the full duplex radios wait for the half-duplex radios to stop talking before beginning to speak. (See Edwards at paragraph 0014.) Seeing that the primary Edwards reference fully achieves the goal of "somehow" incorporating radios with different capabilities such as half duplex and full duplex modes, one of ordinary skill in the art would have no logical reason to turn to Bantel to help achieve that goal. Ultimately, no logical motivation would exist to consider Bantel for a way to

achieve the goal, since the reader of the Edwards reference would already know how to achieve the goal.

Furthermore, the Bantel reference does not make up for the admitted deficiency of the Edwards reference. Contrary to the Examiner's assertion and characterization of Bantel, Bantel does not teach detecting that a half-duplex capable station joins an ongoing real-time media session and responsively directing each other participating station to operate in the half-duplex mode.

Bantel teaches a system in which data terminals communicate with a conference bridge via network trunks. Bantel discloses at column 4, lines 15-26, that conventional interoffice trunks 131 are used for these connections. And Bantel discloses at column 5, lines 29-38, that some trunks may provide a 4.8 Kb/sec half-duplex connection while other trunks may provide a 56 Kb/sec data rate. Bantel then explains at column 5, lines 39-41, that the conference bridge will appear transparent to the different terminals by virtue of its ability to configure itself to the data speed and signaling of any trunk. Thus, some terminals may communicate with the bridge via a 4.8 Kb/sec half-duplex trunk while other terminals may communicate with the bridge via a 56 Kb/sec trunk.

Bantel then teaches a process in which a conference has a set of operational parameters (referred to as "private use parameters") and, when a new terminal seeks to join the conference and is incapable of operating with those existing operational parameters, the terminal may propose a different set of parameters. According to Bantel, the bridge will then poll the existing conference participants to determine if they will accept that newly proposed set of parameters, and the bridge will allow the new terminal to join only if all of the existing terminals agree to operate with the new set of parameters.

Contrary to the Examiner's suggestion, the new set of parameters disclosed by Bantel does not involve half-duplex operation.

At column 15, lines 9-30, Bantel explains the types of parameters that may define terminal capabilities or private use parameters:

Among the information transmitted in the CCS message is the service identifier, the terminal identifier (in this case, the data bridge system 135), time and date. Also sent will be certain non-basic terminal capabilities such as page size, image coding capability, resolution, etc., and non-basic session capabilities such as window size and manufacturer's code which is used to identify the manufacturer of the bridge. In the case of a manufacturer's code, the country of manufacture and apparatus type will be sent.

The CSS command also includes a data field indicating the private use parameters of the calling terminal. In the case of the data bridge, which is in effect transparent to data flow among the conferees, the bridge indicates to the first leg summoned to a conference that it is capable of accepting all private use parameters.

Private use parameters are used to define certain capabilities of a data terminal. For example, private use parameters might indicate a terminal has the ability for encryption or to encode/decode image data via a non-standard algorithm.

Bantel does not state that the terminal capabilities considered when deciding whether to allow a new terminal to join are related to half-duplex or full-duplex terminal operation. Rather, Bantel's disclosure regarding half-duplex and full-duplex operation is focused specifically on the types of *network trunks* over which various terminals communicate with the bridge, and, as noted above, Bantel teaches that the bridge can configure itself to 4.8 Kb/sec ("half-duplex") speed or 56 Kb/sec speed and thus appear transparent to the different terminals. It seems clear in Bantel that the speed of the various trunks used in a conference is thus a non-issue, as the bridge will automatically configure itself accordingly.

In setting forth the rejection, the Examiner stated that Bantel teaches detecting that a half-duplex capable terminal joins the session, as the Examiner alleged that Bantel teaches that the

"bridge processor determines that the capability response received from a new leg differs from the capabilities of the conference wherein the capabilities include half-duplex mode and full duplex mode", citing Bantel at column 17, lines 10-25, column 5, lines 30-37, and abstract. However, neither these portions of Bantel nor other portions of Bantel teaches the bridge processor determining that a half-duplex capable terminal joins a session.

Column 17, lines 10-25, teaches at best that the terminal seeking to join the ongoing conference may determine that it is incapable of operating with the current operational parameters of the conference, that the terminal may responsively propose a new set of operational parameters, and that the bridge may then poll the existing conference participants to determine whether the existing participants will accept the newly proposed operational parameters. Yet that does not relate to half-duplex operation. Again, Bantel teaches earlier that the "half-duplex" speed is a trunk speed, and Bantel seems to assume that the bridge is arranged to communicate via both "half-duplex" trunks (4.8 Kb/sec) and faster (56 Kb/sec) trunks. Bantel does not mention anything about a half-duplex capable terminal joining a session. Rather, at best, Bantel discusses half-duplex speeds of network trunks.

Further, column 5, lines 30-37, also does not teach detecting that a half-duplex capable terminal joins the session. Rather, that portion of Bantel focuses at best on the different speeds of the network trunks. The portion also states that the different modes (data speeds of the network trunks) will require different sequences of signals between the data terminals and the bridge. But it seems clear from subsequent disclosure in Bantel that this is a matter of setting up the physical layer connection, and Bantel does not teach these signal sequences being the terminal capabilities compared with existing operational parameters of a conference.

Still further, the abstract of Bantel also does not teach detecting that a half-duplex capable terminal joins the session. Although the abstract describes requiring all existing session participants to accept any different capabilities of a new terminal as a condition to the new terminal joining, Bantel does not teach considering any sort of half-duplex capability of a terminal seeking to join, and Bantel does not teach detecting that a half-duplex capable terminal joins the session.

The Examiner next asserted that Bantel teaches responsively directing each other participating station to operate in the half-duplex mode. Yet this is also not the case. Bantel does not teach responsively directing each other participating station to operate in the half-duplex mode. Further, although the Examiner stated that Bantel teaches this, the Examiner did not point to any disclosure in Bantel of such a teaching, because Bantel does not actually include such a teaching. At best, the Examiner stated that Bantel teaches "since the new terminal has indicated a set of capabilities (half duplex mode) differing from the conference, the data bridge system must now poll the terminals already connected to the data conference to ascertain whether or not these terminals will accept he new parameters." However, the Examiner's parenthetical insertion of the phrase "half duplex mode" does not change the fact that Bantel does not teach a terminal indicating that is half-duplex capable, and Bantel does not teach responsively directing each other participating station to operation in the half-duplex mode.

Furthermore, neither Edwards nor Bantel teaches "directing" each other participating station to operate in the half-duplex mode. In fact, both references teach telling terminals about a particular mode of operation, but neither teaches directing each other participating station to operate in the mode. The best Edwards teaches is notifying other radios that a given radio wants to go to full duplex mode; yet Edwards does not teach *directing* terminals to switch to full duplex

mode. And the best Bantel teaches is notifying other terminals that a given terminal wants to use a new set of parameters; yet Bantel does not teach *directing* terminals to switch to use of that new set of parameters.

The Examiner has argued that "directing" means "showing the way by conducting or leading or imposing direction on." However, Applicant submits that it is clear what directing means in Applicant's claims, namely, *telling to do something* (in this case, telling each other participating station to operate in the half-duplex mode). That meaning of "directing" is clear in the claims and in the specification. Further, even if one were to interpret the word "directing" to mean "showing the way by conducting or leading or imposing direction on" as the Examiner proposes (which Applicant submits is incorrect), the cited art would still not disclose the feature of "directing each other participating station to operate in the half-duplex mode," because the cited art does not teach *showing the way to operate in the half-duplex mode or conducting or leading or imposing direction to operate in the half-duplex mode*.

Given these factual errors, the Examiner's basis for the obviousness conclusion regarding claim 1 was flawed. Thus, the Examiner did not establish *prima facie* obviousness of claim 1.

Furthermore, the Examiner's articulated reasoning for reaching the obviousness conclusion was also logically flawed. In particular, after discussing Bantel's alleged disclosure, the Examiner reasoned as follows:

Thus it would have been obvious to a person skilled in the art at the time of the invention to incorporate the concept of negotiating a common set of communication parameters when data terminals having differing capabilities are connected to the same conference(directing all the radios of a system to a half-duplex mode which is a lower capability) as disclosed in Bantel into the method for providing full duplex and half duplex dispatch calls as disclosed in Edwards, in order to provide conference service to all radio, no matter its capability.

Yet this reasoning by the Examiner does not support a conclusion of obviousness.

Most importantly, as noted above, the Edwards disclosure already teaches how to achieve the goal of providing conference service to full duplex and half duplex devices at the same time. Therefore, one skilled in the art would not logically be compelled to modify Edwards to add such an achievement, as doing so would be redundant. Moreover, as discussed above, the Examiner incorrectly characterized Bantel as teaching directing of all radios in a system to half-duplex mode; as discussed above, Bantel does not disclose that.

For the foregoing reasons, Applicant submits that the Examiner did not clearly articulate reasoning with rational underpinnings to support the obviousness conclusion, and that the Examiner therefore did not establish *prima facie* obviousness of claim 1. Consequently, Applicant submits that claim 1 is allowable. Furthermore, Applicant submits that the dependent claims are allowable as well for at least the reason that they depend from allowable claim 1.

Applicant also notes that the Examiner further erred in rejecting dependent claim 13, which adds to claim 1 the feature of the communication server operating in half-duplex mode during the session (per intervening claim 12), and wherein operating in the half-duplex mode comprises (i) if the particular mode is half-duplex, then applying implicit floor control and (ii) if the particular mode is full-duplex, then not applying implicit floor control.

In rejecting claim 13, the Examiner made some assertions about teachings of the art, but the Examiner did not assert or provide any articulation of reasoning as to why the invention of claim 13, particularly the "implicit floor control" limitations, would follow from the teachings of the cited art. Applicant's specification defines the "implicit floor control" functionality of the server at page 18, line 12 – page 19, line 7, as including, for instance, receiving an implicit floor request in the form of an incoming media stream from a station that does not yet hold the floor, and implicitly denying the floor request by ignoring the media stream if another station currently

holds the floor. The Examiner did not point to any disclosure of implicit floor control or provide any reasoning as to why implicit floor control would allegedly follow from the teachings of the cited art. Rather, at best, the Examiner discussed half-duplex operation in push-to-talk and noted that the art teaches controlling which party in a PTT session holds the floor. But mere floor control is not *implicit floor control*.

Because the Examiner did not articulate any reasoning as to why the *implicit floor control* function of claim 13 (rather than mere floor control) would have allegedly followed from the teachings of the cited art, the Examiner did not establish *prima facie* obviousness of claim 13. For this reason as well, Applicant submits that claim 13 is allowable. Further, similar reasoning may apply to other claims as well.

4. Conclusion

For the foregoing reasons, and without acquiescing in any assertion by the Examiner that is not expressly addressed by these remarks, Applicant respectfully requests favorable reconsideration and allowance of all of the pending claims.

Should the Examiner wish to discuss this case with the undersigned, the Examiner is invited to call the undersigned at (312) 913-2141.

Respectfully submitted,

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